

# Gums, Adhesives & Sealants Technology (with Formulae & their Applications) 2nd Edition

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## About the Book

Naturally occurring polysaccharides from plant exudates have been in use from many decades in immense quantities. Natural gums are natural polymers, which mainly consists of carbohydrates sometimes with small amounts of proteins and minerals. Gum and its derivatives are widely used in various industries as per its needs. The appearance and properties of natural gums determine their commercial value and end use. Due to their extraordinary, unrivalled technological & functional properties gum is used in many industries. Gums not only modify viscosity and consistency, they also often attenuate odour, taste and flavour intensity. Adhesive or sealant is a mixture in a liquid or semi-liquid state that is capable of holding materials together by surface attachment. Adhesives and sealants are used as a raw material for the manufacturing industry or for the service of different processing industries. Adhesives and sealants virtually touch every part of our lives. The adhesives and sealants are two chemically similar but functionally different groups of formulated products. There is no end in sight to the new materials, new formulation, and new uses to which adhesives and sealants will be put in the future.

Some of the fundamentals of the book are advantages of adhesive bonding, hybrids and coupling agents, adhesive films, designing polymers for adhesives, fundamentals of adhesion, designing polymers for adhesives, thermodynamics of adhesion, casein and mixed protein adhesives, lime-free casein adhesives, foil to paper laminating adhesives, casein and protein blend glues as wood adhesives, chemistry of protein blend glues, natural rubber adhesives, vulcanizing latex adhesives, solution adhesives from natural rubber, halogenated butyl rubber, butyl rubber and poly isobutylene lattices, polysulfide sealants and adhesives etc. This book covers a wide range of polymeric adhesives and sealants, gums along with their essential formularies, distinguished by applications and based on technology. The main areas covered in details are the basic fundamentals, properties, uses and applications, formulations and chemistry, methods of manufacturing and lastly testing methods. This book will be very resourceful to its readers who are just beginners in this field and also to upcoming entrepreneurs, engineers, existing industries, technologist, technical institution etc.

## Contents

I INTRODUCTION TO ADHESIVES

ADVANTAGES OF ADHESIVE BONDING

HISTORY

TYPES OF ADHESIVES

Application and Setting

Origin

Cure; Solubility; Crosslinking

Hybrids and coupling Agents

## Adhesive Films

High Temperature Resistance; Flame Retardance

MATCHING ADHESIVE TO ADHEREND

Critical Surface Tension

Solubility Parameter

Figure

DESIGNING POLYMERS FOR ADHESIVES

Grafting

Reactive Oligomers and Polymers

Copolymerization

Block Copolymers

Interpenetrating Polymer Network (IPN)

NEW TRENDS

## I FUNDAMENTALS OF ADHESION

### INTRODUCTION

Bond Types

Setting

Adhesive Joint Strengths

### SURFACES AND THEIR CHARACTERIZATION

Solids

Liquids

### INTERFACES

Thermodynamics of Adhesion

Acid-Base Considerations

### SURFACE TREATMENT

Metal

Polymers

### MEASUREMENT OF ADHESION

Introduction

Test Methods

### STRENGTH OF ADHESION

Introduction

Molecular Interactions

Autohesion

Durability

Nondestructive Evaluation of Bonds

## I ANIMAL GLUE

### CHEMISTRY

### MANUFACTURING

### PROPERTIES

### TEST GRADES

### TESTING

### CUSTOMER PREPARATION OF GLUE SOLUTIONS

### LIQUID ANIMAL GLUES

### FLEXIBLE AND NON-WARP GLUES

### GLUE APPLICATION

### COATED ABRASIVES

### SET-UP WHEELS

### GREASELESS BUFFING COMPOUNDS

### GUMMED TAPE

GLASS CHIPPING  
SIZING AND COATING  
PAPER  
COMPOUNDED RUBBER  
GASKET MANUFACTURING  
MATCHES  
METAL REFINING  
OTHER APPLICATIONS FOR ANIMAL GLUE

#### I CASEIN AND MIXED PROTEIN ADHESIVES

Manufacture of Casein  
Specifications and Typical Analyses for Casein  
CHEMISTRY AND PHYSICAL PROPERTIES OF GLOBULAR PROTEIN  
CHEMICAL PROPERTIES OF CASEIN  
PHYSICAL PROPERTIES OF CASEIN  
Other Viscosity Factors  
LIME-FREE CASEIN ADHESIVES  
Preparation of Casein Solutions, General  
Preservatives  
Preparation of an Alkaline Casein Solution  
Additives for Casein Solutions  
APPLICATIONS USING CASEIN SOLUTIONS AND ADHESIVES  
Casein as a Protective Colloid  
Paper Coatings  
Foil-to-Paper Laminating Adhesives  
Ice Water Lable Paste Adhesives  
CASEIN AND PROTEIN BLEND GLUES AS WOOD ADHESIVES  
Chemistry of Protein Blend Glues  
Formulation and Chemistry of Casein-Lime Glues  
Mixing Casein Glue  
Additives for Casein and Protein Blend Glues  
Uses of Casein Glues  
Specifications Applying to Casein Glue  
Viscosity and Pot Life  
Certification of Fire Doors  
Properties of Casein Glues  
Durability of Casein Glues

#### I STARCH BASED ADHESIVES

##### MODIFICATION OF STARCHES

Fluidity Starches  
Oxidized Starches  
Dextrinization  
Hydroxyethylation  
Cationic Starches  
Amphoteric Starches  
Miscellaneous Derivatives  
EFFECT OF ADDITIVES  
Sodium Hydroxide  
Borax  
Urea

Glycerol  
Soluble Soaps  
Urea-Formaldehyde Resin  
Miscellaneous Additives  
STARCH ADHESIVES  
Jelly Gums  
Other Liquid Formulations  
Pastes  
Borated Dextrins  
White Dextrins  
Canary Dextrins  
British Gums  
Waxy Starch Dextrins  
Dextrin/Silicate Blends  
Pregelatinized Starches  
APPLICATION AREAS  
Papermaking  
Paper Coating  
Corrugating  
Bag Adhesives  
Laminating Adhesives  
Tube Winding  
Corrugated Boxes  
Gummed Tapes  
Label and Envelope Adhesives  
Paper Box  
Textiles  
Wall Covering Adhesives  
Miscellaneous Uses  
GOVERNMENTAL REGULATIONS: ADDITIVES

## I NATURAL RUBBER ADHESIVES

### INTRODUCTION

### RAW MATERIALS

Natural Rubber Latex

Preservation

Dry Natural Rubber

Natural Rubber Grafted with Methyl Methacrylate (Heveaplus MG)

Depolymerized Rubber

Synthetic Polyisoprene

### FORMULATION OF LATEX ADHESIVES

Quick-Grab Adhesive

Self-Adhesive Envelopes

Latex Pressure-Sensitive Adhesives

Tile Adhesives

Reseal Adhesives

Anchor Coat for Tufted Carpets

Other Nonvulcanizing Latex Adhesives

Vulcanizing Latex Adhesives

### SOLUTION ADHESIVES FROM NATURAL RUBBER

Nonvulcanizing Adhesives

## Vulcanizing Adhesives

Mastics, Asphaltics, and Sealants

GRAFTED COPOLYMER HEVEAPLUS MG  
FORMULATIONS

## I BUTYL RUBBER AND POLYISOBUTYLENE

INTRODUCTION

BASIC PROPERTIES

Butyl Rubber

Polyisobutylene

Halogenated Butyl Rubber

Butyl Rubber and Polyisobutylene Latices

Modified Butyls

FORMULATING AND PROCESSING

Choice of Polymer

Pigments and Fillers

Tackifiers, Plasticizers, and Other Polymeric Additives

Curing Systems

Solvents and Solution Processing

Mixing and Processing Techniques and Guidelines

APPLICATIONS AND FORMULATIONS

Adhesives and Mastics

Sealants

Mixing

## I NITRILE RUBBER ADHESIVES

INTRODUCTION

PREPARATION OF NITRILE RUBBER

EMULSION TECHNOLOGY

Functionally Terminated Telechelic Liquid Polymers

COMPOUNDING NITRILE RUBBER CEMENTS

Polymer Selection and Solubilization

Types of Compounding Ingredients

APPLICATION

Nitrile Rubber Systems

Nitrile Rubber/Phenolic Adhesives

Nitrile Rubber/Epoxy Adhesives

## I STYRENE-BUTADIENE RUBBER ADHESIVES

INTRODUCTION

Perspective

History of SBR

Manufacture of SBR

Basic Chemistry of SBR

SBR LATEXES IN ADHESIVES

General

Classification

Benefits of SBR Latexes

Compounding Ingredients

Major Applications

SBR (SOLID) IN ADHESIVES

General

Classification  
Compounding Ingredients  
Major Applications

I NEOPRENE (POLYCHLOROPRENE) -  
BASED SOLVENT AND LATEX ADHESIVES  
HISTORY  
THE EFFECT OF POLYMER STRUCTURE  
NEOPRENE SOLVENT-BASED ADHESIVE CEMENTS

Types of Neoprene  
Antioxidants  
Metal Oxides  
Resins  
Fillers  
Curing Agents  
Solvents  
Adhesive Processing  
End Uses  
Application Methods  
NEOPRENE LATEX-BASED ADHESIVES  
Anionic Types  
Nonionic Type  
Compounding  
Typical Formulations

I POLYSULFIDE SEALANTS AND ADHESIVES  
POLYSULFIDE SEALANTS

Chemistry  
Compounding  
Curing Agents  
Fillers  
Plasticizers  
Adhesion  
Primers  
Specifications  
ADHESIVES FROM POLYSULFIDE LIQUID  
POLYMER-EPOXY RESIN REACTIONS  
Chemistry  
Physical Properties  
Applications  
OTHER MERCAPTAN-TERMINATED POLYMERS  
Polyethers  
Polyesters  
Urethanes  
Olefin

I PHENOLIC RESIN ADHESIVES  
CHEMISTRY  
Formaldehyde  
Novolaks  
Strong Acid Reactions

Weak Acid Reactions

Resoles

Dispersion Resoles

Resin Cure

MANUFACTURE

ABRASIVES

Bonded Abrasives

Coated Abrasives

COATINGS

FOUNDRY

FRICTION COMPOSITES

MOLDING COMPOUNDS

PHOTORESISTS AND CARBONLESS PAPER

LAMINATING

WOOD BONDING

INSULATION AND FOAM

GENERAL ADHESIVES

ENVIRONMENTAL AND TOXICOLOGICAL CONSIDERATIONS

I AMINO RESIN ADHESIVES

HISTORY

RAW MATERIALS

CHEMISTRY

END USES

Particleboard

Plywood

High-Pressure Decorative Laminates

Miscellaneous Applications

TOXICITY

I EPOXY RESIN ADHESIVES

INTRODUCTION

EPOXY RESINS USED IN ADHESIVES

Bisphenol A Based Epoxy Resins

Epoxy Novolac Resins

High performance Epoxy Resins

Flexible Epoxy Resins

CURING AGENTS USED IN ADHESIVES

Polysulfide

Amines

Aliphatic Amines

Cycloaliphatic Amines

Aromatic Amines

Polyamides

Amidoamines

Dicyandiamide

Catalytic Curing Agents

Anhydrides

SUMMARY

DILUENTS

FILLERS

ELASTOMERIC MODIFIERS

## TYPICAL ADHESIVE FORMULATIONS

### COMPLEMENTARY TECHNOLOGIES

#### Robotics

#### Induction Curing

### APPLICATIONS AND SUMMARY

## I POLYURETHANE - AND ISOCYANATE -

### BASED ADHESIVES

#### REASONS FOR THE EFFECTIVENESS

#### OF POLYURETHANE AND ISOCYANATE-BASED

#### ADHESIVES 321-323

#### TYPES AND USE OF POLYURETHANE

#### AND ISOCYANATE BASED ADHESIVE SYSTEMS

##### Method A (isocyanate primer)

##### METHOD B (CONVENTIONAL PLASTIC OR

##### RUBBER VEHICLE + ISOCYANATE)

##### The Relative Effectiveness of "Vulcabond" T and Tx in

##### Rayon Cord-to-Natural Rubber Adhesion

##### Method C (in situ polyurethane polymerization)

##### Method D (polyurethane elastomer without or

##### with added polyisocyanate)

##### Method E (blocked di-or polyisocyanate)

##### Method F (aqueous dispersion)

##### Method G (film and tape)

##### Method H (powder)

#### POLYURETHANE STABILIZATION

#### HANDLING ISOCYANATE BASED ADHESIVES

#### IDENTIFICATION OF ADHESIVE COMPONENTS

## I POLYOLEFIN AND ETHYLENE COPOLYMER-BASED

### HOT MELT ADHESIVES

#### ADHESIVE FORMULATION

#### Polymers

#### Tackifiers

#### Waxes

#### HOT MELT ADHESIVES APPLICATIONS

##### Cases, Cartons, and Trays

##### Bookbinding

##### Nonwovens

##### Furniture

##### Labels

##### Polyester Beverage Bottles

##### Carpet Seaming Tape

##### Paper Laminates

#### HOT MELT APPLICATION EQUIPMENT

#### FUTURE OF HOT MELT ADHESIVE

## I POLYVINYL ACETAL ADHESIVES

### CHEMISTRY

### HEALTH, TOXICOLOGY, AND SAFETY

### PHYSICAL PROPERTIES



Solubility  
Compatibility  
Viscosity  
Mechanical Properties  
Thermal Properties  
USES AS AN ADHESIVES  
Hot Melts  
Thermosetting Adhesives  
Adhesion to Metal  
Adhesion to Natural Surfaces  
Green Strength Binder  
Composites  
Adhesion to Glass  
Other Uses

I ACRYLIC ADHESIVES  
TECHNOLOGY  
Chemistry  
Glass Transition Temperature (T<sub>g</sub>)  
Crosslinked Thermosets  
BONDING PROCESSES  
Pressure Sensitive  
Contact Bonding  
Heat and Pressure Bonding  
Vacuum Bonding  
Wet Laminating Adhesives  
Filled Adhesives  
ENGINEERING ADHESIVES  
Chemistry and Technology  
Radiation Curing  
Application Processes  
Current Uses

I PRESSURE-SENSITIVE ADHESIVES FOR TAPES AND LABELS  
CONSTRUCTIONS  
Manufacture  
Backings  
Release Coatings and Liners  
ADHESIVE SYSTEMS  
Tackifiers  
Rubber-Based Adhesives  
Acrylics  
Silicones  
Miscellaneous Polymers  
Surface Energetics  
Tack  
Peel Adhesion  
Cohesive Strength  
TEST METHODS  
Tack Testing  
Peel Adhesion Testing

Shear Resistance Testing  
Miscellaneous Tests  
Tapes  
Labels and Decals  
Other Products  
Adhesive Mass Thicknesses

## I FACTORS INFLUENCING GUM COSTS AND APPLICATIONS

### DEFINITION OF GUM

### FACTORS AFFECTING RAW GUM COSTS

1. Exudate Gums
2. Seaweed Gums
3. Seed Gums
4. Starch and Cellulose Derivatives

### INDUSTRIALLY VALUABLE PROPERTIES OF GUMS

1. Linear Natural Polysaccharides
2. Brached Neutral Polysaccharides
3. Polysaccharides with Carboxyl Groups
4. Polysaccharides with Strong Acid Groups
5. Polysaccharides tuith basic Groups

### MODIFIED GUMS

1. Introduction of Neutral Groups
2. Introduction of Acideic Groups
3. Introduction of Groups
4. Graft Polymers
5. Other Chemical Modifications of Natural Polysaccharides

## I AGAR

### INTRODUCTION

### SOURCE

1. Raw Matrial
2. Processing
3. Finished Product

### HISTORY

1. Discovery
2. Manufacture
3. Use
4. Present Applications
5. Derivatives

## IV. STRUCTURE

### PROPERTIES

1. Solid
2. Sols
3. Gels

## I ALGIN

### INTRODUCTION

### PRODUCTION

1. Source
2. Seasonal Variations
3. Harvesting

4. Processing
5. Grades
6. Industrial Importance
7. Potential Amount

#### APPLICATIONS

1. Introduction
2. Mode of Action
3. Foods

#### DAIRY PRODUCTS

#### BAKERY PRODUCTS

#### OTHER FOOD PRODUCTS

4. Pharmaceuticals and Cosmetics
5. Industrial Applications

#### PAPER PRODUCTS

#### TEXTILE PRODUCTS

#### RUBBER PRODUCTS

#### OTHER INDUSTRIAL USES

#### STRUCTURE

#### PROPERTIES

1. Dissolution
2. Solution Properties
3. Gels
4. Films
5. Compatibilities
6. Algin in Foods
7. Other Properties

#### I LAMINARAN

#### INTRODUCTION

#### PRODUCTION

1. Source
2. Producing Areas
3. Seasonal Effects
4. Collection
5. Preparation

#### HISTORY OF DEVELOPMENT

#### STRUCTURE

#### PROPERTIES

#### I CHITIN AND ITS DERIVATIVES

#### INTRODUCTION

#### PRODUCTION

1. Crustaceans
2. Insects
3. Fungi
4. Preparation
5. Preparation of Deacetylated Chitin, Other Chitin Derivatives, and D-Glucosamine
6. Grades
7. Potential Amount

#### HISTORY

#### IV APPLICATION

1. Sizing
2. Adhesives
3. Emulsion Stabilization and Thickening
4. Pharmaceuticals and Cosmetics
5. Extruded Fibers and Films
6. Glycosamine Hydrochloride in Foods and Pharmaceuticals

#### STRUCTURE

##### PROPERTIES

1. Solubility and Viscosity
2. Gels
3. Films and Fibers
4. Adhesiveness
5. Compatibilities

#### I GUM ARABIC

##### INTRODUCTION

##### PRODUCTION

1. Republic of the Sudan
3. Nigeria
4. Tanganyika
5. Morocco
6. British Somaliland and Abyssinia
7. South Africa
8. India
9. Australia
10. Miscellaneous

##### TYPES OF GUM IN THE UNITED STATES

##### STRUCTURE

##### ARABIC ACID

1. Preparation
2. Properties
3. Degraded Gum Arabic
4. Derivatives of Arabic Acid

##### FACTORS WITH AFFECT VISCOSITY

1. Concentration
2. Temperature
3. Electrolytes
4. pH
5. Solvents Others Than Water
6. Aging
7. Mechanical Treatment
8. Ultrasonic Vibrations and Ultraviolet Irradiation

##### OTHER PHYSICAL PROPERTIES

1. Surface Tension
2. Freezing Point

##### COACERVATION

1. Introduction
2. Gum Arabic-Gelatin Coacervates
3. Preparation of Coacervates
4. General Properties, Physical Appearance, and Composition

5. Effect of Temperature
6. Effect of pH
7. Reactions of Salts
8. Physical Phenomena
9. Uses of Gum Arabic-Gelatin Coacervates
10. Coexisting Coacervates
11. Other Coacervates

#### CHEMICAL PROPERTIES

1. Chemical Reactivity
2. Solubility
3. Enzymes

#### SEPARATION AND IDENTIFICATION OF GUM ARABIC

1. Isolation of Gum Arabic from Commercial Products
2. Systematic Analytical Scheme
3. Physical Confirmatory Tests
4. Chemical Confirmatory Tests
5. Direct Tests for Gum Arabic in Some Commercial Products

#### USES

1. Foods
2. Adhesives
3. Paints
4. Inks
5. Lithography
6. Textiles
7. Miscellaneous

#### I CORN HULL GUM

##### INTRODUCTION

##### SOURCE AND PREPARATION

##### DEVELOPMENT OF USE

##### STRUCTURE

##### PROPERTIES

#### I GUAR GUM

##### INTRODUCTION

##### PRODUCTION

1. Source and Producing Areas
2. Agronomics
3. Purification
4. Grades

##### USES

1. HISTORY
2. Mining Industry
3. Foods
4. Cosmetics and Pharmaceuticals
5. Paper Industry
6. Explosives
7. Derivatives

##### STRUCTURE

##### PROPERTIES

1. Viscosity

2. Gels
3. Films
4. Adhesiveness
5. Miscellaneous

## I GUM KARAYA

### INTRODUCTION

#### Production

1. Source
2. Producing Areas
3. Seasonal Effect
4. Collection
5. Purification
6. Grades
7. Impurities
8. Potential Amount

#### USES

1. History
2. Commercial Value

#### STRUCTURE

#### PROPERTIES

1. Dissolution and Viscosity Measurements
2. Gels
3. Films
4. Adhesiveness
5. Acid Resistance
6. Dispersibility
7. Ropiness
8. Water Retention

## I PECTIN

### INTRODUCTION

#### PRODUCTION

1. Source
2. Producing Areas
3. Seasonal Effects
4. Collection
5. Purification
6. Grades and Definitions of Grades
7. Impurities
8. Quantities Marketed
9. General Industrial Uses Other Than in Foods

#### FOOD

#### Mode of Action

#### Structure

#### Properties

1. Pectin Types as Defined by Degree of Methylation
2. Solubility
3. Solutions, Stability and Viscosity
4. Gels
5. Assay Methods, Calculations, and Composition

DIRECTORY SECTION  
PRESENT MANUFACTURERS  
SUPPLIERS OF RAW MATERIALS  
SUPPLIERS OF THE PLANT M/C & EQUIPT.

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